

The Most Accurate RFI Geolocation Capability

KRATOS



Kratos' leading RF interference geolocation product, Monics®satID® provides an accurate, fast, all-in-one solution for locating and identifying sources of interference, including VSAT/TDMA terminals.

Unmatched Accuracy

With the capability to geolocate within 5 km* of the interfering signal, Monics satID is the most accurate geolocation product available today. In many cases, the ephemeris accuracy may need to be increased for geolocation scenarios to produce accurate geolocation results. To solve this issue Kratos developed Ephemeris Error Compensation (EEC). EEC is a time proven tool that dramatically improves accuracy of geolocation scenarios by correcting the inaccurate ephemeris prior to the scenario being performed.

Faster Results and Map-Driven User Interface

Employing a map-driven user interface, Monics satID provides operators with the ability to perform geolocation scenarios more efficiently and effectively. In most cases, scenarios can be created and begin receiving pinpointed geolocation results displayed on a map within minutes.

Geographic context is central to understanding and optimizing the geolocation process. Geolocation operations can be conducted directly from the map, removing the reliance on less intuitive menu selections for geolocation scenarios. Mapping data is provided either directly from most of the available online third party map services or a Kratos map server for non-internet enabled systems to provide the most up to date and accurate maps available.

* Kratos provides 5 km or better accuracy for established scenarios.

Key Features:

- Perform accurate geolocations efficiently and effectively with an intuitive map-driven user interface
- Accelerate troubleshooting efforts by geolocating the exact location of VSAT terminals causing interference using the terminal ID
- Restore full geolocation capability in contested environments with signal cancellation capability
- Dramatically improve geolocation accuracy with patented Ephemeris Error Compensation (EEC) and result averaging capabilities
- Scalable architecture enables single site to global operations
- Supports L, S, C, Ku, Ka, UHF and X band geolocation
- Dedicated 24x7 customer support

Increased Productivity

The intuitive user interface provides flexibility both in terms of approach and scenario visualization. This allows the tool to suit the user thereby increasing performance and productivity. With the advanced scenario configuration, which includes beam visualization and transponder time delay configuration, level 1 operators can now perform many geolocation scenarios instead of passing the problem along to a higher level operator as they may have done in the past. Innovative features such as the Geolocation Wizard provide increased guidance to users as they configure the scenario and add new levels of automation to reduce user time on interference location. In addition, new scenario templates created by higher level operators can be used by lower level operators to ensure the accuracy of results.

Monitoring and Geolocation

In a single easy to use solution, Monics satID serves as an unparalleled system that integrates both monitoring and geolocation capabilities. Monics satID can identify important monitoring feedback, such as detailed carrier-under-carrier characterizations which simplifies the task of geolocating hidden carriers deliberately or accidentally interfering with legitimate satellite traffic. Having the elements required for RFI mitigation integrated into a single solution provides complete scenario analysis and greater geolocation confidence.

Complete RFI Mitigation Suite

The Monics product family provides advanced and scalable quality of service monitoring and also delivers RF interference resolution capabilities. The complete suite helps operators characterize signals, identify interference, geolocate the source and cancel interfering signals.

The family of products includes:

- Monics – comprehensive and scalable carrier monitoring
- Monics satID – most accurate signal geolocation
- Monics SatGuard – identifies VSAT terminals causing interference in minutes
- SigX – automatically cancels sweeping and stationary CW interference, higher power modulated signals and lower power signals

Enhancing the Geolocation Process

Monics satID Modules:

TDMA Geolocation

Accelerate troubleshooting efforts by not only identifying the specific VSAT terminals causing interference, but also geolocating their exact location using the terminal ID.



▲ Terminals are geolocated in a TDMA network using Monics satID.

Signal Cancellation

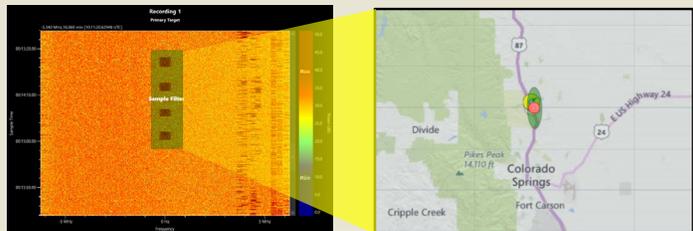
Remove signals in real-time which could compromise geolocation performance, such as a blocking access on the adjacent satellite. Improve geolocation efficiency and effectiveness.



▲ Display shows signal blocking access to geolocation and then being removed using Monics satID.

Record and Analyze Spectrum

- Maximize productivity by fully capturing and recording geolocation scenarios and avoid time spent chasing signals of interest
- Capture difficult signals with continuous recording of 40MHz of spectrum for more than 8 hours for analysis later
- Optimize geolocation processing based on signal presence
- Troubleshoot issues by defining the spectrum to be recorded directly from the analyzer



▲ Using satID operators can process the samples from the recording to geolocate the source of the interference.